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24. NEW GENERIC RECORDS OF GRASSES FOR MAHARASHTRA

1500 specimens of about 300 species of grasses and bamboos have been collected during our extensive field survey over the past three years. Some of the specimens collected from Gondiya district of Maharashtra were of *Diectomis fastigiata*; specimens collected from Ajara of Kolhapur district were identified as *Lepturus radicans*. As both *Diectomis* and *Lepturus* form new generic records for the state, a detailed description along with illustration and field notes are presented in this paper. The specimens have been deposited in the herbarium of Shivaji University, Kolhapur.

Monotypic genus *Diectomis* Kunth is widely distributed in China, Myanmar, tropical America, Africa and India.

Diectomis fastigiata (Sw.) Kunth in Humb. Et Bonpl., nov. gen. et Sp. 1, 193 (1816) t. 64; Bor, Grass. Bur. Ceyl. Ind. Pak. 135. 1960; Moulik, Grass. Bam. Ind. 1:275. 1997. *Andropogon fastigiata* Swartz, Prodr. Veg. Ind. Occ. 26, 1788; Hook. F., Fl. Brit. India 7: 167, 1896 (Fig. 1).

Annual. Culms terete, erect or geniculate at base, 20-80 cm high; nodes glabrous. Leaf: Sheaths terete, 1.5-5 cm long, glabrous; ligule membranous, 3.5-4 mm long; blades linear, 2.5-20 x 0.1-0.2 cm long, glabrous, setaceous. Raceme single, enclosed by spathe, 2-3.5 cm long, joints turbinate, slightly compressed, 2.6-3 mm long, ciliate on both margins with white hairs. Callus short, bearded. Sessile spikelets coriaceous, linear-lanceolate, 3.3-4 x 0.4-0.5 mm. Lower glume coriaceous, linear-lanceolate, 3.8-4 x 0.4-0.5 mm, 6-nerved, deeply grooved on the back, 2-keeled, ciliate in the groove in upper half, apex 2-toothed. Upper glume coriaceous, boat shaped, 3.3-3.5 x 0.8-0.9 mm, 3-nerved, 1-keeled; keels ciliate, running into a capillary, 10-12 mm long awn, apex 2-toothed. Lower lemma membranous, ovate-lanceolate, 2.8-3 x 0.4-0.5 mm, strongly 2-keeled, 2-nerved, deeply grooved on the back, margins ciliate, apex obtuse, epaleate. Upper lemma membranous, boat shaped 2.6-2.7 x 0.6-0.7 mm 1-nerved, apex 2-fid, awned from the sinus; awn 20-25 mm long, scaberulous. Palea hyaline, oblong-elliptic, 2-2.2 x 0.4-0.5 mm, nerveless, obtuse, stamens 3; anthers 0.8-1.0 x 0.2-0.3 mm, ovary linear, 0.4-0.5 x 0.2-0.3 mm. Lodicules 2, cuneate, 0.4-0.5 mm. Caryopsis elliptic-obovate, 1.7-1.8 x 0.4-0.5 mm. Pedicle of pedicelled spikelet turbinate, slightly compressed, 2.3-2.5 mm, densely ciliate on the margins. Pedicelled spikelet ovate-

lanceolate, 6.8-7 mm long. Lower glume membranous, ovate-lanceolate, 6.8-7 x 1.5-1.7 mm, 15-nerved, central nerve distinct, 2-keeled; keels obscurely winged, scabrid, 2-toothed at apex, median awn 5 mm long. Upper glume membranous, ovate-lanceolate, 3.2-3.4 x 0.4-0.5 mm, 5-nerved, 1-keeled, slightly 2-toothed at apex, awned; awn 3 mm long, ciliate on margins. Lemma membranous, ovate-lanceolate, 1.8-2 x 0.3-0.4 mm, nerveless, margins ciliate, acute, epaleate.

Growing in sandy soil and on rocky slopes.

Fl. & Fr.: September-November.

Note: *Diectomis fastigiata* has been reported from Uttar Pradesh, Madhya Pradesh, Bihar, Orissa and West Bengal. It grows in sandy soils and on rocky slopes in Gondiya district in Eastern Maharashtra. It is a very good fodder grass in young stages before the awns begin to form (Bor 1960). It turns red as it dries. It is very distinct in its 15-nerved lower glume of pedicelled spikelet.

Exsiccata: Borkanhar (Gondiya District) Potdar 1477, Mandodevi (Gondiya District) Potdar 1482.

Genus *Lepturus* R. Br. with about 8 species is distributed in coastal east Africa, Madagascar to Australia and Polynesia. So far, *Lepturus radicans* is the only species reported for India from Karnataka, which was recently collected from Maharashtra.

Lepturus radicans (Steud.) A. Camus in Ann. Soc. Linn. Lyon, 1922, n.s., 69, 87 (1923); Bor, Grass. Bur. Ceyl. Ind. Pak. 585. 1960; Moulik, Grass. Bamb. Ind. 2: 463. 1997 (Fig. 2).

Perennial, stoloniferous. Culms prostrate, 10-30 cm high, rooting at nodes, nodes glabrous. Leaf; sheath terete, 1-4 cm long, glabrous, ligule membranous 0.5-0.8 mm long; blades linear, 3-12 x 0.2-0.6 cm long, glabrous, base with bulbous based hairs. Spike single, 2-6 cm long. Joints not breaking easily, 3 mm long, joints hollow on one side alternately. Spikelets sessile, coriaceous, linear-lanceolate, 4-4.5 mm long, sunken in hollow of rachis. Lower glume absent. Upper glume coriaceous, flat, linear-lanceolate, 3.5-4 x 0.6-0.8 mm, 10-12-nerved apex acute to acuminate. Lower lemma membranous, boat shaped, 2.6-2.8 x 0.5-0.6 mm, 3-nerved, apex acuminate. Palea membranous, margins inflexed, 2.5-2.6 x 0.5-0.6 mm, 2-nerved, apex acute, stamens 3, anthers 1.3-1.5 x 0.1-0.2 mm, ovary obovate, 1.5-2 x 0.4-0.5 mm. Lodicules 2, cuneate,

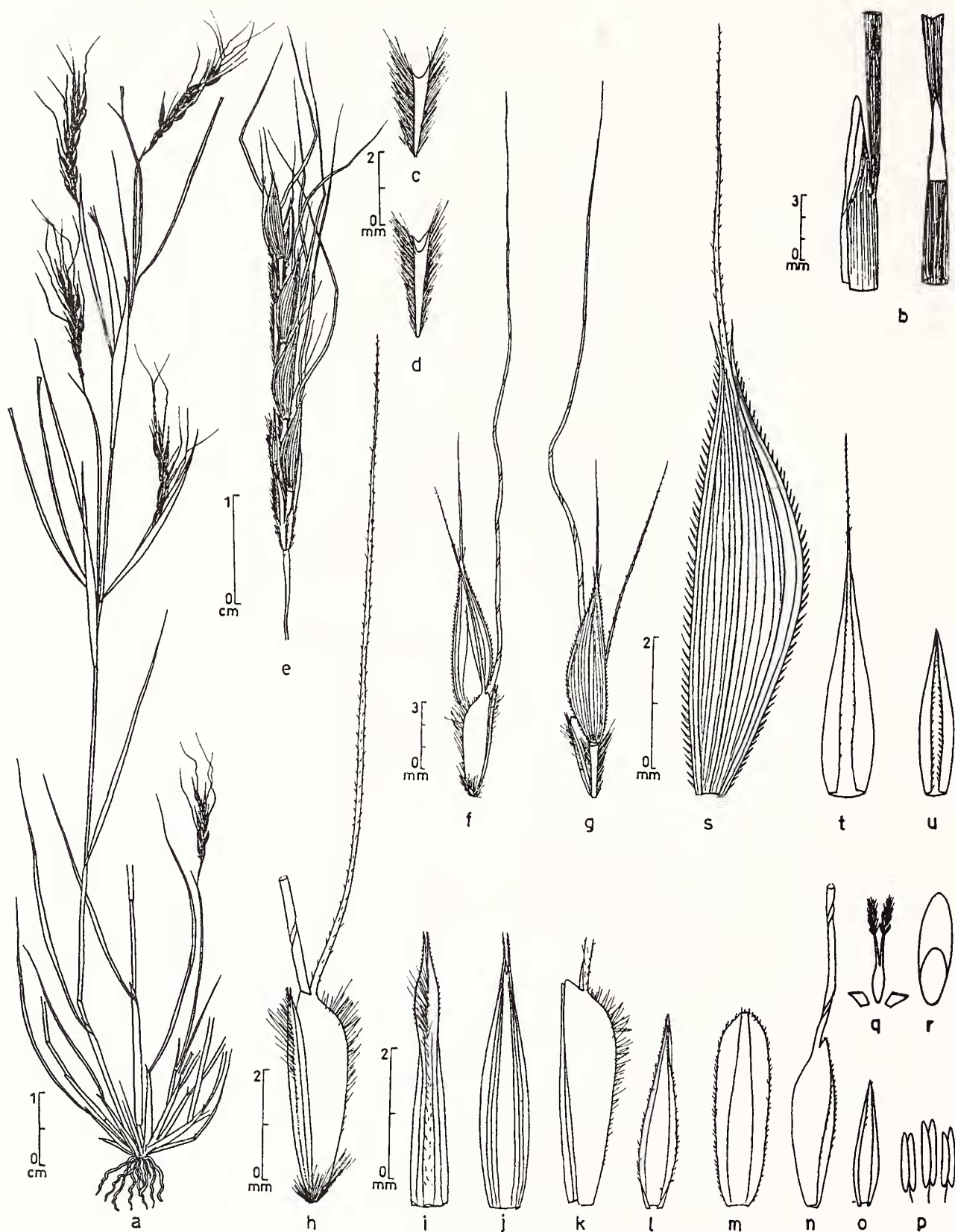


Fig. 1: *Diectomis fastigiata* (Sw.) Kunth; a. Habit; b. Collar; c. Pedicel; d. Joint; e. Raceme; f. & g. Pedicelled and Sessile spikelets; h. Sessile spikelet; i. & j. Lower glume; k. Upper glume; l. & m. Lower lemma; n. Upper lemma; o. Palea; p. Stamens; q. Pistil and Lodicules; r. Grain; s. Lower glume of pedicelled spikelet; t. Upper glume of pedicelled spikelet; u. Lemma.

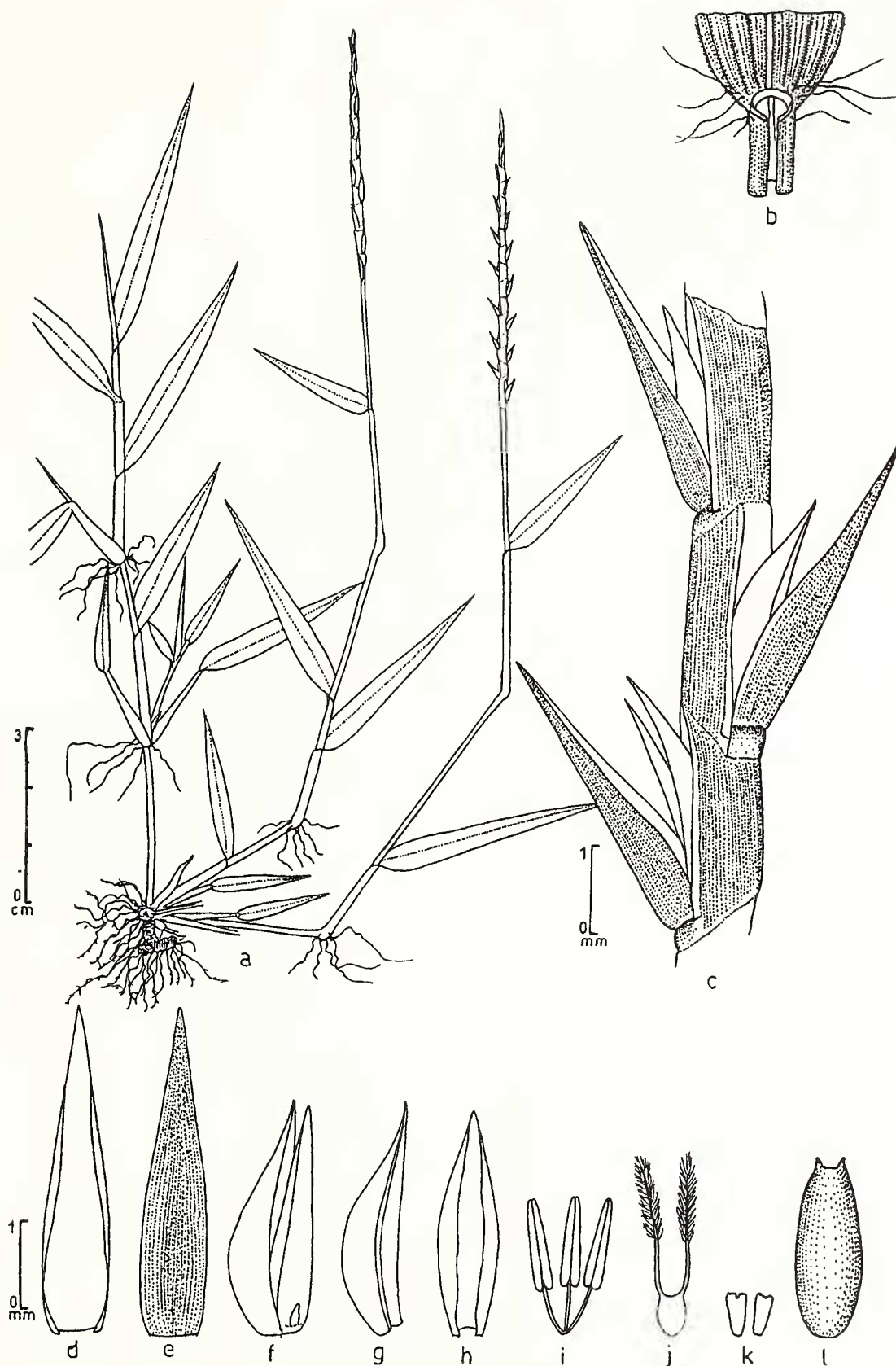


Fig. 2: *Lepturus radicans* (Steud.) A. Culm; a. Habit; b. Collar; C. Spike; d. Adaxial view of upper glume; e. Abaxial view of upper glume; f. Lower lemma and Palea with upper rudimentary floret; g. Lower lemma; h. Palea; i. Stamens; j. Ovary; k. Lodicules; l. Grain.

0.4-0.5 mm. Caryopsis elliptic-obovate, 1.8-2 x 0.6-0.8 mm. Upper floret reduced to a rudimentary structure.

Fl. & Fr.: July-October.

Exsiccata: Ajara, Potdar 1566.

Note: *Lepturus radicans* was collected by us from Dandeli forest of Karnataka in June 2003. Recently, it was collected from forests around Ajara region in Kolhapur district of Maharashtra. It is common in shady places along roadsides and forest margins. The spikelet is two flowered, but the upper floret is highly reduced and represented by a small appendage on protruded rachilla.

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25. *NERVILIA INFUNDIBULIFOLIA* BLATTER & MCCANN (ORCHIDACEAE): A NEW RECORD FROM SIKKIM HIMALAYA

Nervilia infundibulifolia (Orchidaceae) was first described by Blatter & McCann from North Canara of Karnataka, India; based on the specimen from Yellapur, N. Canara, T.R. Bell mss. Icon. E. Bell.

Later, the occurrence of this taxon was known both from Western Himalaya (Garhwal) and Eastern Himalaya (only Arunachal Pradesh) (Deva and Naithani 1986; Chowdhery 1998) leaving Nepal, Sikkim and Bhutan.

The species was reported from Bhutan in 2002 for the first time by Pearce and Cribb (2002). However, it is hitherto unknown from Nepal and Sikkim. Recently, a collection of this taxon from Sikkim Himalaya (between Yoksum and Bakhim, West Sikkim) was made and is a new record for Sikkim Himalaya. Thus, it is expected that this species has a continuous distribution from Western Himalaya to Eastern Himalaya and extends eastwards to Thailand, Malay and Borneo (Pearce and Cribb 2002), along with its first record from the Western Ghats region, Maharashtra and Orissa, in India. It is possible that the species occurs in Nepal and Myanmar and also Yunnan and Hupeh region of China.

A detailed description of the taxon along with the present known distributional records is given below.

Nervilia infundibulifolia Blatter & McCann in J. Bombay Nat. Hist. Soc. 35: 725. t.3.1932; Deva & Naithani, Orchid Fl. N.W. Himalaya 85. t.83.1986; Chowdhery, Orchid Fl. Arunachal Pradesh 529. t.530.1998; Pearce & Cribb, Fl. Bhutan 3(3- Orchids of Bhutan): 58. t.59.2002.

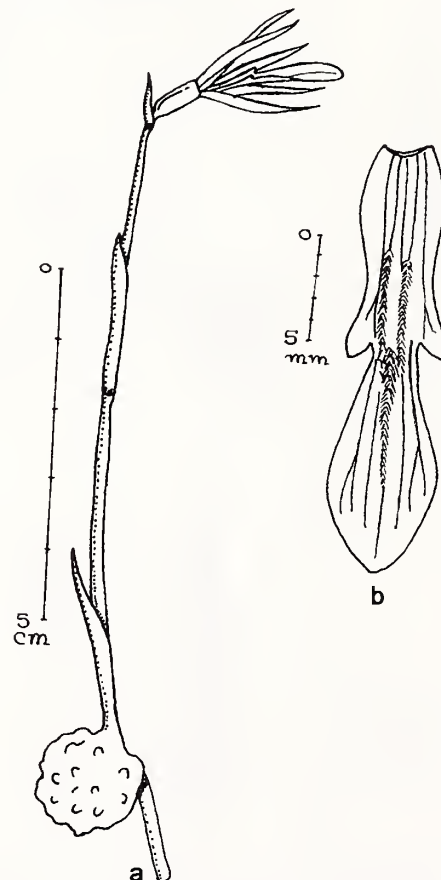


Fig. 1: *Nervilia infundibulifolia* Blatter & McCann;
a. Habitat; b. Lip